ABSTRACT OF THE INVENTION

An analytical virtual machine (AVM) analyzes computer code using a software processor including a register that stores behavior flags indicative of

5   behaviors identified by virtually executing the code within the virtual machine. The AVM includes a sequencer that stores the sequence in which behavior flags are set in the behavior flags register. The AVM analyzes machine performance by emulating execution of the code being analyzed on a fully virtual machine and records the observed behavior. When emulation and analysis are complete, the

10   AVM returns the behavior flags register and sequencer to the real machine and terminates.